



SELECTION GUIDE

	Part Number	Material	Product Type	Shrink Ratio	Operating Temp. & Voltage Rating	Min. Shrink Temp.	Min. Full Recovery Temp.	Flame Retardant	MIL Spec.	General Description
Heat Shrinkable Single Wall Polyolefin Tubing	Q1	Polyolefin	Thin Wall	2:1	-55°C +105°C 600V	80°C	100°C	-	-	Non Flame-Retardant, General Purpose, Flexible, Glossy Black or Clear Size: 1.0-100mm (3/64" to 2")
	Q1-2000	Polyolefin	Thin Wall	1.5:1	-55°C +105°C 600V	-	120°C	-	-	Non Flame-Retardant, for Brake Pipe Protection Size: 5.0-15mm (1/8" to 3/8")
	Q2	Polyolefin	Thin Wall	2:1	-55°C +125°C 600V	70°C	100°C	VW-1	-	UL & CSA, Flexible, Highly Flame-Retardant Size: 1.0-150mm (3/64" to 6")
	Q2-3X	Polyolefin	Thin Wall	3:1	-55°C +125°C 600V	70°C	100°C	VW-1	-	UL & CSA, Flexible, High Shrink Ratio, Highly Flame-Retardant Size: 1.5-39mm (1/16" to 1 1/2")
	Q2-CB	Polyolefin	Super Thin Wall	2:1	-55°C +125°C 300V	70°C	100°C	VW-1	-	No PBB's, PBBE's, PBBO's, Low Cadmium and Lead Size: 1.0-10mm (3/64" to 1")
	Q2-F	Polyolefin	Thin Wall	2:1	-55°C +135°C 600V	70°C	100°C	VW-1	SAE-AMS-DTL-23053/5 Class 1 & 3	No PBB's, PBBO's, PBBE's, Very Flexible, Highly Flame-Retardant Size: 1.2-152mm (3/64" to 6")
	Q2-F3X	Polyolefin	Thin Wall	3:1	-55°C +135°C 600V	70°C	100°C	VW-1	SAE-AMS-DTL-23053/5 Class 1 & 3	No PBB's, PBBE's, PBBO's, Very Flexible, High Shrink Ratio, Highly Flame-Retardant Size: 1.6-38.1mm (1/16" to 1 1/2")
	Q2-F4X	Polyolefin	Thin Wall	4:1	-55°C +135°C 600V	70°C	100°C	VW-1	SAE-AMS-DTL-23053/5 Class 1 & 3	No PBB's, PBBE's, PBBO's, Very flexible, High Shrink Ratio, Highly Flame-Retardant Size: 19.1-115mm (3/4" to 4 1/2")
	Q2-F2XYG	Polyolefin	Thin Wall	2:1	-55°C +135°C 600V	70°C	100°C	VW-1	SAE-AMS-DTL-23053/5 Class 1 & 3	Yellow-Green Striped, Flexible, Flame-Retardant Tubing Size: 1.6-39mm (1/16" to 1 1/2")
	Q2-F3XYG	Polyolefin	Thin Wall	3:1	-55°C +135°C 600V	70°C	100°C	VW-1	SAE-AMS-DTL-23053/5 Class 1 & 3	Yellow-Green Striped, Flexible, Flame-Retardant Tubing Size: 1.6-39mm (1/16" to 1 1/2")
	Q2-HF	Polyolefin	Thin Wall	2:1	-55°C +105°C 600V	65°C	95°C	-	-	Halogen Free Polyolefin Tubing, Low Smoke Size: 1.0-150mm (3/64" to 6")
	Q2-LS	Polyolefin	Thin Wall	2:1	-45°C +125°C 600V	65°C	95°C	MVSS 302	-	Low ShrinkTemp., Very Flexible, Halogen Free Polyolefin Tubing Size: 1.6-50.8mm (1/16" to 2")
	Q2-R	Polyolefin	Semi-rigid Thin-Wall	2:1	-55°C +135°C 600V	90°C	120°C	Self-extinguish in 30 seconds	SAE-AMS-DTL-23053/5 Class 1	Semi-Rigid Flame-Retardant Tubing, Resistant to Common Chemicals and Solvents. Size: 1.2-25.4mm (3/64" to 1")
	Q2-Z	Polyolefin	Thin Wall	2:1	-55°C +125°C 600V	70°C	100°C	VW-1	-	UL & CSA, No PBB's, PBBE's, PBBO's, Flexible, Cadmium < 5PPM & Lead < 10PPM Size: 1.0-150mm (3/64" to 6")
Heat Shrinkable Dual Wall Tubing	Q5-2X	Polyolefin	Dual Wall	2:1	-45°C +125°C 600V	80°C	100°C	Self-extinguish in 30 seconds	-	UL & ABS Approval, Adhesive Lined, Flexible, Flame-Retardant Tubing Size: 3.2-38.1mm (1/8" to 1 1/2")
	Q5-3X	Polyolefin	Dual Wall	3:1	-45°C +125°C 600V	80°C	100°C	Self-extinguish in 30 seconds	-	UL & ABS Approval, Adhesive Lined, Flexible, High Shrink Ratio, Flame-Retardant Tubing Size: 3.0-50.0mm (1/8" to 2")
	Q5-4X	Polyolefin	Dual Wall	4:1	-45°C +125°C 600V	80°C	100°C	Self-extinguish in 30 seconds	-	UL & ABS Approval, Adhesive Lined, Flexible, High Shrink Ratio, Flame-Retardant Tubing Size: 4.0-32.0mm (3/16" to 1 1/4")
	Q5-3XM	Polyolefin	Heavy Dual Wall	3:1	-45°C +125°C 600V	110°C	-	Self-extinguish in 30 seconds	-	UL & ABS Approval, Adhesive Lined, Flexible, High Shrink Ratio, Flame-Retardant Tubing Size: 19.0-100.0mm (3/4" to 4")
	Q5-4XR	Polyolefin	Semi-rigid Dual Wall	4:1	-45°C +125°C 600V	120°C	-	Self-extinguish in 30 seconds	-	UL & ABS Approval, Adhesive-Lined, Flexible, High Shrink Ratio, Flame-Retardant Tubing Size: 6.0-18.0mm (0.236" to 0.708")
	Q5-2000	Polyolefin	Dual Wall	1.5:1	-55°C +105°C 600V	-	120°C	-	-	Adhesive Lined Tubing, Protects Automotive Metal Pipes & Fuel Lines Size: 5.0-15mm (1/8" to 3/8")

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Heat Shrinkable Tubing Medium & Heavy Wall	QFRA	Polyolefin	Heavy Wall	3:1	-55°C +110°C 600V	120°C		ASTM D 2671	-	Heavy wall adhesive-lined, Flame-Retardant Polyolefin Tubing Size: 9.0-120mm
	QR2	Polyolefin	Medium Wall	3:1	-55°C +110°C 600V		120°C		-	High Electrical Insulation, Excellent Mechanical Protection to Protect Cable Joints and Terminations Size: 8.0-200mm (.315"-8")
	QRA2		Medium Dual Wall							
	QR3	Polyolefin	Heavy Wall	3:1	-55°C +110°C 600V		120°C		-	High Electrical Insulation, Excellent Mechanical Protection to Protect Cable Joints and Terminations Size: 9.0-200mm (.354" to 8")
	QRA3		Heavy Dual Wall							
	QRA-6X	Polyolefin	Heavy Dual Wall	6:1	-55°C +110°C 600V		120°C		-	High Electrical Insulation, Excellent Mechanical Protection to Protect Cable Joints and Terminations Size: 19-119.4mm (3/4" to 5")
High Voltage Insulation Tubing	QAT	Polyolefin	Medium Wall	2:1	-55°C +105°C up to 36KV	110°C	-	IEC 93	-	Halogen Free, High Creep Resistance & Anti-Tracking Properties Size: 19-130mm (3/4" to 4")
	QBM	Polyolefin	Medium Wall	2.5:1	-55°C +105°C 5-24KV	110°C	-	IEC 93	-	Halogen Free, High Voltage Bus Bar Insulation Tubing Wall Thickness: 3.0mm Size: 15-150mm (3/5" to 6")
	QBT	Polyolefin	Medium Wall	2.5:1	-55°C +105°C 5-24KV	110°C	-	IEC 93	-	Halogen Free, High Voltage Bus Bar Insulation Tubing Wall Thickness: 2.0mm Size: 25-100mm (1" to 4")
	QDWT	Polyolefin	Heavy Wall	3:1	-45°C +100°C up to 36KV	100°C-	130°C	-	-	Semi Conducting Insulation Dual Wall Tubing. Suitable for applications in power cable joints up to 36KV Size: 35-140mm
	QSC-100	Polyolefin	Medium Wall	2:1	-45°C +100°C up to 36KV	100°C	130°C	-	-	Stress Control Tubing. Controls the High Electrical Stress Present at the end of the Cable Termination and Joint Size: 16-95mm
	QSCT	Polyolefin	Medium Wall	2:1	-45°C +105°C up to 36KV	100°C	120°C	-	-	Semi Conductive Tubing. Provides Effective Insulation Screen on High Voltage Cable Connectors Size: 30-120mm
Molded Parts End Caps	QAS	Polyolefin	-	-	-55°C +105°C up to 36KV	-	110°C	IEC93	-	High Creep Resistance & Anti-Tracking Properties Provides Insulation Protection for Outdoor Cable Termination Size: 35-120mm 1 1/2" to 5")
	QBR3C	Polyolefin	-	-	-55°C +100°C up to 36KV	110°C	130°C	IEC93	-	Insulation & Sealing of Cable Breakouts for 1KV Cables. 3, 4 & 5 Core Types Size: 30-120mm
	QBR4C									
	QBR5C									
QSEC	Polyolefin	-	-	-55°C +110°C 1000V	-	120°C	-	-	Spiral Hot Melt Adhesive Coated End Cap, for Protecting Cable End from the Environmental Effects. Size: 14-120mm (3/5" to 5")	
Specialty Products	Q-150K	Modified PVDF Kynar®	Flexible Thin Wall	2:1	-55°C +150°C 600V	175°C	-	VW-1	SAE-AMS-DTL-23053/8	Black, Flexible, High-Temperature Chemical Resistant Polyvinylidene Fluoride (PVDF) Kynar®. Size : 1.2-25.4mm (3/64" to 1")
	Q-175K	PVDF Kynar®	Semi-rigid Thin Wall	2:1	-55°C +175°C 600V	175°C	-	VW-1	SAE-AMS-DTL-23053/8	Clear, High Temperature Chemical Resistant Polyvinylidene Fluoride (PVDF) Kynar® Size: 1.2-25.4mm (3/64" to 1")
	Q-200E	Modified Fluoro Elastomer Viton®	Very Flexible Thin Wall	2:1	-55°C +200°C 600V	175°C	-	VW-1	SAE-AMS-DTL-23053/13	Flexible, Elastic, High Temperature, Solvent Resistance Viton Size: 3.2-50.8mm (1/8" to 2")
	Q2-XT	Polyolefin	Thin Wall	Non - Shrink	-55°C +125°C 600V	-	-	VW-1	-	Non-Shrink, Irradiated Flexible Flame-Retardant Tubing Size: AWG 24-0 (3/8" to 1")
	QFSP	Polyolefin	-	-	-45°C +100°C	-	120°C	-	-	Optical Fiber Splices for Strength & Protection
	QBCS	-	-	-	-55°C +105°C	-	-	-	-	Heat Shrinkable Crimp Butt Splice 22-10AWG
	Q-PVC	PVC	Thin Wall	Non - Shrink	-40°C +105°C 600V	-	-	VW-1	-	Flexible, Flame Retardant PVC Non-Shrink Tubing with Excellent Electrical & Physical Properties Size: .80mm-16.0mm
	QTT-L	Teflon (PTFE)	Thin Wall	Non - Shrink	-80°C +200°C 600V	-	-	VW-1	-	High Temperature Teflon Non-Shrink Tubing with Excellent Insulation & Mechanical Strength Properties

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